Ever wonder where sour cream comes from? Or cottage cheese? Or Butter? Numerous products in the dairy section at the grocery store are developed from nature’s most nutritious product—milk. The great consumer demand for milk and products made from milk generates the need for a successful dairy cattle industry in today’s society. Seven major dairy breeds supply most of the milk across the nation. Let’s explore the similarities and differences of these breeds and the ways they affect the dairy cattle industry.

Objective:
Identify the seven major breeds of dairy cattle utilized in milk production in the United States.

Key Terms:
- Ayrshire
- Brown Swiss
- butterfat
- fawn
- Guernsey
- Holstein
- Jersey
- Milking Shorthorn
- Red and White roan

The Seven Major Dairy Breeds

HOLSTEIN

If you look out your car window and spot a dairy cow, it is probably a Holstein. In fact, the Holstein breed comprises more than 90 percent of all the dairy cattle in the United States. This breed is easily recognized by its large frame and distinctive black and white markings. The Holstein breed originated in Friesland, a province of the Netherlands, and was first imported to the United States in 1852 by Winthrop Chenery, of Massachusetts, under the breed name Holstein-Friesian. The breed is now commonly known as Holstein.
A Holstein dairy cow will mature to about 1,500 pounds and produce an average of 24,876 pounds of milk per year. This breed’s advantage of high milk production makes it the largest milk producer of all the dairy breeds. Yet, this breed’s milk is low in butterfat (the fat content in milk) and protein. This lack of butterfat and protein is a disadvantage to the producer because the milk is classified as a low-quality product and receives a lower premium.

**RED AND WHITE**

Because of their qualitative genetic traits, Holstein dairy cattle evolved to develop another dairy cattle breed, the Red and White. When Holsteins carrying the red recessive traits are bred, this breed emerges and holds characteristics similar to those of the Holstein breed, except for a difference in color markings. The Red and White breed has red and white markings. Years ago, Holstein producers would cull red-colored Holsteins because the animals were not eligible for registration. It was not until 1966 that these cattle could be registered as a breed.

**AYRSHIRE**

The Ayrshire breed of cattle is widely known for its “vigorous personality,” with its strong feet and legs, excellent ability to withstand extreme temperatures, and strong, well-attached
udders. Because of this vigor, Ayshires have a superior grazing ability, which allows for the consumption of forages for a higher quality of milk production.

The Ayrshire breed has a variety of colors, including light to deep cherry red, mahogany, brown, a combination of these colors with white, and solid white. This breed has a medium-sized frame. An Ayrshire cow matures to about 1,200 pounds, and yields more than 17,000 pounds of milk, on average.

The breed originated in the County of Ayrshire in Scotland and was first imported to the United States in 1822 by a dairy farmer in Connecticut to graze on rocky pastures. The majority of Ayrshire cattle grown in the United States today can be found in New York, Wisconsin, and Pennsylvania.

**BROWN SWISS**

The Brown Swiss is one of the oldest breeds of dairy cattle, with records dating back to 4000 B.C. Originating in the Alps of Switzerland, Brown Swiss cattle were first imported to the United States in 1869 by Henry M. Clark, of Balmont, Massachusetts. Because of this breed’s ability to adapt to various environments and stress, it quickly spread throughout the nation, reaching the Pacific Coast in 1895.

Mostly covered in shades of light to dark brown, the Brown Swiss breed is known for its black nose, tongue, and tail and its lightly colored band around the muzzle. With a calm disposition, the Brown Swiss is a slow-maturing breed that has correct feet and legs. It is classified as a large-framed breed, with a Brown

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**FIGURE 3. Ayrshire. (Courtesy, Pete’s Photo, Wykoff, MN)**

**FIGURE 4. Brown Swiss. (Courtesy, Pete’s Photo, Wykoff, MN)**
Swiss cow, on average, maturing to 1,500 pounds, while yielding more than 20,000 pounds of milk. The Brown Swiss breed is distinguished for its longevity and a persistent milking ability. The milk has a high butterfat and protein ratio compared with the milk of other breeds. Researchers using biotechnology are making strides to improve Brown Swiss udder quality and milk yield.

GUERNSEY

The Guernsey, often referred to as the “Golden Guernsey,” is well known for the color of its milk, which is more golden than the milk of other breeds of dairy cattle. Because of the off-color of its milk, the Guernsey breed has become less popular with consumers, resulting in a decline in the numbers of this breed. Developed by monks, the Guernsey breed originated on the Island of Guernsey, France. Its first importation to the United States by Captain Belair arrived in New York in 1840.
The Guernsey is usually **fawn**, or orangish-brown, with various white markings and a clear muzzle. It is classified as a medium-framed animal. The average Guernsey cow matures to 1,100 pounds and produces more than 16,000 pounds of milk. Guernseys produce a milk that is high in fat and protein. Because of their small calves and low feed consumption, Guernseys are not able to compete against other breeds in the dairy industry market.

**JERSEY**

The **Jersey** breed’s popularity has increased in recent years due to its production of milk with the highest fat and protein content of all dairy cattle breeds. In fact, the Jersey is often called the “cheese breed” because of the high yield of cheese from its milk. On average, a Jersey cow matures to 950 pounds but produces more than 17,000 pounds of milk. With its small size and high milk yield, the Jersey breed is the most efficient producer in the world.

The Jersey is usually fawn in color but can have a variety of white markings or be almost completely black. Often, the Jersey has a white ring above its nose and has black hooves and a black nose.

Jersey cattle are known for their ability to adapt to a wide range of geographic and temperature conditions. Originating on the British Island of Jersey and imported to the United States in 1850, the Jersey breed is widely spread throughout the world.

**MILKING SHORTHORN**

The **Milking Shorthorn** was identified as a dairy breed of cattle in 1968. Originating in Tee River Valley, England, the Milking Shorthorn was first imported to the United States in 1793, arriving in Virginia as both a beef- and milk-type animal.
Milking Shorthorns are usually characterized by various colors, such as shades of red, red and white, solid white, or roan, meaning a reddish-white color. Milking Shorthorns are known as medium-framed animals with deep bodies and straight legs. On average, Milking Shorthorn cows mature to 1,250 pounds and yield more than 17,000 pounds of milk. This breed is characterized as typically having great calving ease, good grazing ability, and large udders. Due to genetic improvements in recent years, the Milking Shorthorn breed has become more viable with an improved udder quality.

**Summary:**

The seven major dairy breeds of cattle are viable to the success of the dairy industry because of their illustrious traits. The Holstein breed is known for its large average milk production but is at a disadvantage because of the low butterfat and protein content of its milk. The Red and White breed is very similar to the Holstein except for its coloring. The Ayrshire breed is well known for its strong feet and legs, grazing ability, and well-attached udders. The Brown Swiss breed is distinguished by its high fat and protein ratio of its milk and its calm disposition. The Guernsey breed often has smaller calves and produces golden-colored milk. The Jersey breed produces milk with a high butterfat and protein content. The Milking Shorthorn is a dual-purpose breed; that is, it is both a meat- and milk-type breed.

**Checking Your Knowledge:**

1. What dairy breed produces the majority of milk in the United States today?
2. What dairy breed is classified as one of the oldest breeds?
3. What breed of dairy cattle produces milk that is slightly more golden in color than that of other breeds today?
4. What breed of dairy cattle is characterized as the most efficient producer in the world?
5. What breed of dairy cattle is characterized as a dual-purpose breed?
Expanding Your Knowledge:

Explore the Internet by searching for the seven major dairy cattle breeds. Investigate each breed and discover whether each breed has a breed association. List the advantages and disadvantages breed associations have for a dairy cattle producer.

Web Links:

Ayrshire Breeders Association
http://www.usayrshire.com

Brown Swiss Association
http://www.brownswissusa.com

American Guernsey Association
http://www.usguernsey.com

Holstein Association
http://www.holsteinusa.com

American Milking Shorthorn Society
http://www.milkingshorthorn.com

American Jersey Cattle Association
http://www.usjersey.com

Red and White Dairy Cattle Association
http://www.redandwhitecattle.com